

Amendments to the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A two-dimensional array type radiation detector, comprising:

converting layers for responding to radiation and outputting a charge signal corresponding to an incident amount to thereby form pixels,

switching elements arranged in a matrix form under the converting layers and connected to the converting layers,

gate bus lines and data bus lines connected to the switching elements and arranged parallel to each other in spaces of rows of the pixels,

a gate driver section connected to the respective switching elements through the gate bus lines for sequentially turning on the respective switching elements at a time of reading signals,

a data collecting section connected to the pixels through the data bus lines for reading out charge signals stored in the respective pixels, and

a control section connected to the gate driver section and the data collecting section to control the same, wherein the two-dimensional array type radiation detector constitutes one module, and a plurality of the modules is connected at end surfaces where the gate bus lines and data bus lines are not formed.

2-3. (canceled)

4. (currently amended) A two-dimensional array type radiation detector ~~as claimed in claim 2, comprising:~~

converting layers for responding to radiation and outputting a charge signal corresponding to an incident amount to thereby form pixels,

switching elements arranged in a matrix form under the converting layers and connected to the converting layers,

gate bus lines and data bus lines connected to the switching elements and arranged parallel to each other in spaces of rows of the pixels,

a gate driver section connected to the respective switching elements through the gate bus lines for sequentially turning on the respective switching elements at a time of reading signals,

a data collecting section connected to the pixels through the data bus lines for reading out charge signals stored in the respective pixels, and

a control section connected to the gate driver section and the data collecting section to control the same,

wherein one of said gate bus lines and one of said data bus lines are disposed in a space between two rows of the pixels, and said gate bus lines include line sections extending perpendicular to the data bus lines, one line section being connected to one gate bus line.

5. (original) A two-dimensional array type radiation detector as claimed in claim 4, wherein said data collecting section, gate driver section and control section are all located at one side of the converting layers.